

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



Office of Pesticide Programs

MEMORANDUM

8/13/2018

SUBJECT: Product Chemistry Review for **AQUCAR 7140 LT Water Treatment Microbiocide**; EPA Reg. No. **464-IRUE**; DP **446705**

FROM: Sergey Alekseyev, Chemist  
Product Science Branch, CTT

Registrant: The Dow Chemical Company

Action code: (540) New Product; Non-Fast Track; FIFRA Sec. 2(MM) Uses

THROUGH: Karen P. Hicks, Team Leader  
Product Science Branch  
Antimicrobials Division (7510P)

Agency Due Date: 08/06/2018

Submission No. 1017218

TO: Zeno Bain/Terria Northern  
PM Team 33  
Regulatory Management Branch I  
Antimicrobials Division (7510P)

E-Sub No.: 27545

Formulation: EUP

Pesticide classification: antimicrobial

MRID(s): 503267-05, 503267-06, and 503267-07

PC Code	CAS No.	Name	% by wt.
043901	111-30-8	Glutaraldehyde (1,5-Pentanedione)	14.0
069105	68424-85-1	BTC-835 (Alkyl* dimethyl benzyl ammonium chloride *(50% C14, 40% C12, 10% C16))	2.5
		Other ingredients	83.5

**BACKGROUND:**

The registrant, The Dow Chemical Company, requested registration of the product Reg. No. **464-IRUE**.

**II. RELEVANT DOCUMENTS**

	RECEIVED	N/A
EPA FORM 8570-1 – Application for Pesticide Registration	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EPA FORM 8570-27 – Formulator's Exemption Statement	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EPA FORM 8570-34 – Certification with respect to citation of data	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EPA FORM 8570-35 – Data Matrix, dated 03/14/2018	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cover letter, dated 03/14/2018	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transmittal document	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Proposed CSF, a basic, dated 08/09/2018	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Proposed label, no date	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Certification for Pilot Fragrance Notification Program	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>REFERENCED:</i>	--	

**III. FINDINGS****CONFIDENTIAL STATEMENT OF FORMULA****a. Product Formulation:**

	TGAI	MUP	EUP	Food use	Non-food use
Non-integrated	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Integrated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Active Ingredients(s)	Nominal	Upper limit	Lower limit
Glutaraldehyde (1,5-Pentanedione)	14.0	14.7	13.3
BTC-835 (Alkyl* dimethyl benzyl ammonium chloride *(50% C14, 40% C12, 10% C16))	2.5	2.6	2.6
	<b>YES</b>	<b>NO</b>	<b>N/A</b>
1. The certified limits of the active ingredients are within 40 CFR standard certified limits.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Wider certified limits were requested and rationale was accepted.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. The nominal concentration(s) of the active ingredient is in agreement with the label.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 The chemical IDs and analytical information for density, pH, and flammability are consistent with Series 830 Group B data.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. All ingredients are approved for food use pesticide formulations.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The impurities present >0.1% are identified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Impurities of toxicological significance have an upper certified limit.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

b. Product Label:

	<b>YES</b>	<b>NO</b>	<b>N/A</b>
<i>The formula contains one of the following:</i>			
1. 10% or more of petroleum distillate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. 1.0% or more of methyl alcohol	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Sodium nitrite at any level	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. A toxic list 1 inert at any level	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Arsenic in any form	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. If yes to 2-6, then the inert ingredient list contains a relevant footnote	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Appropriate warning statements regarding flammability or explosive characteristics of the product are included on the label	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. The storage and disposal instructions for the pesticide container are in compliance with PR Notice 84-1 for household use products or PR Notice 83-3 for all other uses.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. The product requires an expiration date at which time the nominal concentration falls below the lower certified limit.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### IV. ADDITIONAL FINDINGS

1. The basic CSF, dated 08/09/2018, is acceptable. All ingredients listed in this CSF have been cleared for using in pesticide formulation.
2. Storage Stability and Corrosion Characteristics studies have not been carried out. Said studies should be accomplished within 1 year.
3. The Physical and Chemical Hazards section of a label should include statements as follows:  
**“Product is strong reducer! Keep away from oxidizers.”**

#### V. CONCLUSIONS:

1. The registrant has satisfied the basic CSF, dated 08/09/2018, requirements for registration of EPA Reg. No. **464-IRUE**. This CSF supersedes all previous basic CSFs.
2. Storage Stability and Corrosion Characteristics studies should be submitted within 1 year, see Additional Finding 2.

**VI. Table A:**  
**Series 830 Guidelines – Group A**

<b>OPPTS#</b>	<b>Name</b>	<b>Status</b>	<b>MRID</b>
830.1550	Product Identity & Composition	Y	503267-05
830.1600	Description of Materials	Y	503267-05
830.1620	Description of Production Process	N/A	
830.1650	Description of Formulation Process	Y	503267-05
830.1670	Discussion of Formation of Impurities	Y	503267-05
830.1700	Preliminary Analysis	N/A	
830.1750	Certified Limits	Y	CSF
830.1800	Enforcement Analytical Method	Y	503267-05
830.1900	Submittal of Samples	N/A	



**VII. Table B:**  
**Series 830 Guidelines – Group B**

OPPTS#	Name	Study Findings/Comment	Status	MRID
830.6302	Color	Colorless	Y	503267-06
830.6303	Physical State	Liquid	Y	503267-06
830.6304	Odor	PR Notice 92-5	N/A	
830.6313	Stability to Normal & Elevated Temperatures, Metals & Metal Ions	The product is not TGAI.	N/A	
830.6314	Oxidation/Reduction: Chemical Incompatibility	The product is a strong reducer.	Y	503267-06
830.6315	Flammability	17.2 °C	Y	503267-06
830.6316	Explosibility	The product is not explosive.	W	503267-07
830.6317	Storage Stability		N	
830.6319	Miscibility	The product is not to be mixed with organic components	W	Label
830.6320	Corrosion Characteristics		N	
830.6321	Dielectric Breakdown Voltage	The product is not to be used around electrical equipment.	W	Label
830.7000	pH	5.64 as is at 22.4 °C; 4.40 (1% solution) at 22.4 °C	Y	503267-06
830.7050	UV/Visible Absorption	1.54	N/A	
830.7100	Viscosity	2.3 cSt at 20 °C; 1.4 cSt at 40 °C	Y	503267-06
830.7200	Melting Point	The product is not TGAI.	N/A	
830.7220	Boiling Point	The product is not TGAI.	N/A	
830.7300	Density/Bulk Density	0.897 g/ml at 20 °C	Y	503267-06
830.7370	Dissociation Constants in Water	The product is not TGAI.	N/A	
830.7520	Particle Size	The product is not TGAI.	N/A	
830.7550/ 7560/ 7570	Partition Coefficient	The product is not TGAI.	N/A	
830.7840/ 7860	Water Solubility	The product is not TGAI.	N/A	
830.7950	Vapor Pressure	The product is not TGAI.	N/A	

Explanations: Y = Requirement fulfilled; N = Requirement not fulfilled; N/A = Not applicable; G = Data gap; U = Upgradeable; I = Incomplete or in progress; W = Waived